

Notice of Allowability**Application No.**

10/791,723

Applicant(s)

GU ET AL.

Examiner

PHUONG HUYNH

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed on 03/04/2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 09/28/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20080605
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Eadward Yoo on June 6, 2008.

The application has been amended as follows:

In the claims:

Claim 1, line 15, after "(h)" replace "fine localization of" by --fine localizing--.

Claim 17, at line 18, before "determining the difference", insert --means for--.

Claim 18, at line 11, after "(d)", delete "means for".

In the Specification:

At the last page of Specification, delete all text after the end of Paragraph [0049].

2. The following changes to the **drawings** have been approved by the examiner and agreed upon by applicant:

Figures 2 and 3 contain shades.

Figure 4 contains irregular letters; some even illegible, for example, box 20.

Formal Drawings will be filed.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Allowable Subject Matter

3. Claims 1-18 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Kase (USPN. 5,991,703) discloses a surface shape of an object 1 is measured from different positions and/or different directions and plural partial measurement data 2 including common part 1a is obtained. A parametric surface showing the surface shape of each measurement range is formed from the data. A plurality of sampling points are set at a predetermined pitch in the common part and the Gaussian curvature K and/or an average curvature H are calculated from the principal curvatures (κ_1, κ_2) in the points. Three or more characteristic points are selected in accordance with the order from larger absolute values of K or H in the common part and a normal vector of a plane constructed by three points among the points is calculated. The common parts are made coincide with each other by moving the parametric surfaces so as to coincide the three characteristic points with each other and to coincide the directions of the normal vectors with each other. Consequently, the synthesis data can be formed from the partial

measurement data obtained from the free-form surface [see Kase: Abstract; col. 2, lines 44-59; and col. 4, line 45-col. 5, line 70].

Haertig et al. (hereinafter "Haertig") (USPN. 6,665,080) discloses a method for determining the deviation in the measured geometric dimensions and/or position of an object from definable desired values of said dimensions and/or position. Before determining the deviations the measurement values of the dimensions and/or position of the object are adapted to the desired values, taking into consideration definable tolerance values of said desired values of the dimensions and/or position of the object [see Haertig: Abstract; col. 3, line 50-col. 4, line 34].

Frost et al. (hereinafter "Frost") (USPAP. 2007/0050172) discloses A method for measuring a throat area of a turbine nozzle assembly that includes at least one airfoil extending between an inner band and an outer band is provided. The method includes locating a plurality of datum points on the at least one airfoil using a measuring system, measuring a plurality of measurement points within a flow path at least partly defined within the turbine nozzle assembly using the measuring system, comparing the plurality of datum points to a plurality of corresponding datum points measured on a baseline turbine nozzle assembly, and calculating a throat area variance between the measured turbine nozzle assembly and the baseline turbine nozzle assembly model based on the

comparison to the baseline turbine nozzle assembly [see Frost: Abstract; Paragraphs [0035]-[0039]].

Regarding claim 1, the combination as claimed wherein "determining at least three pairs of corresponding points from the first and the second free-form surfaces; generally localizing the first free-form surface to the second free-form surface; selecting the corresponding points from those corresponding regions; fine localizing the first surface to the second surface; determining the difference between the points in each pair of the corresponding sets" is not disclosed, suggested, or rendered obvious by the prior art of record.

Claims 2-16 depend from allowed claim 1 and therefore are also allowed.

Regarding claim 17, the combination as claimed wherein "means for determining at least three pairs of corresponding points from the first and the second free-form surfaces; means for generally localizing the first free-form surface to the second free-form surface; means for selecting the corresponding points from those corresponding regions; means for localization of the first surface to the second surface; means for determining the determining the difference between the points in each pair of the corresponding sets" is not disclosed, suggested, or rendered obvious by the prior art of record.

5. Regarding claim 18, the combination as claimed wherein "determining at least three pairs of corresponding points from the first and the second free-form surfaces; generally localizing the first free-form surface to the second free-form surface; selecting the corresponding points from those corresponding regions; fine localizing the first surface to the second surface; determining the difference between the points in each pair of the corresponding sets" is not disclosed, suggested, or rendered obvious by the prior art of record.

Conclusion

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONG HUYNH whose telephone number is (571)272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Huynh
Examiner
Art Unit 2857

/Phuong Huynh/

Examiner, Art Unit 2857

June 6, 2008

/Eliseo Ramos-Feliciano/
Supervisory Patent Examiner, Art Unit 2857